

Claims Listing:

1. (Currently amended) A thermal spraying device comprising:
a flame-generating means (1,2) for generating a flame and an injection means (3) for injecting a powder into the generated flame;
said flame-generating means (1,2) comprising an end piece (1) out of which the flame is directed towards a substrate to be subjected to spraying; and
said powder-injection means (3) ~~comprises~~ comprising a frame element (6) that projects in the flame ejection direction beyond the end piece (1); ~~[[and]]~~
wherein the frame element (6) at least partly surrounds a flame zone extending from the end piece (1) and has 1) a plurality of radially oriented open through holes (9) extending through the frame element (6) from an outer surface thereof to an inner surface thereof and distributed circumferentially about the frame element (6); and 2) two or more radially inwardly oriented powder injection ports distributed about the frame element (6).
2. (Currently amended) The thermal spraying device as recited in claim 1, wherein the frame element (6) covers at least 90 degrees (~~180 degrees~~) of a circumference around the flame zone extending from the end piece (1).
3. (Original) The thermal spraying device as recited in claim 1, wherein the frame element (6) covers at least 180 degrees of a circumference around the flame zone extending from the end piece (1).
4. (Original) The thermal spraying device as recited in claim 1, wherein the frame element (6) covers at least 270 degrees of a circumference around the flame zone extending from the end piece (1).

5. (Original) The thermal spraying device as recited in claim 1, wherein the frame element (6) has an inner periphery having a cross-section shape corresponds to the cross-section shape of the inner periphery of the end piece (1).

6. (Original) The thermal spraying device as recited in claim 1, wherein the frame element (6) defines a ring-shaped element.

7. (Previously Presented) The thermal spraying device as recited in claim 1, wherein there are greater than ten radially oriented open through holes (9).

8-9. Cancelled.

10. (Previously Presented) The thermal spraying device as recited in claim 1, wherein the plurality of radially oriented open through holes (9) are evenly distributed around a periphery of the frame element (6).

11. (Previously Presented) The thermal spraying device as recited in claim 1, wherein the end piece (1) has an inner diameter d and the frame element (6) has a projection distance p , and $0.5d < p < 6d$.

12. (Previously Presented) The thermal spraying device as recited in claim 1, wherein the end piece (1) has an inner diameter d and the frame element (6) has a projection distance p , and $0.5d < p < 2d$.

13. (Original) The thermal spraying device as recited in claim 1, wherein the end piece (1) has an inner diameter d and a projecting part of the frame element (6) has a corresponding inner diameter D in which is at least as great as d .

14. (Original) The thermal spraying device as recited in claim 1, wherein the end piece (1) has an inner diameter d and a projecting part of the frame element (6) has a corresponding inner diameter D approximately 1.2 times as great as d .

15. (Cancelled)

16. (Currently amended) The thermal spraying device as recited in claim [[15]] 1, wherein the plurality of powder injection ports (5) are evenly distributed around the inner periphery of the frame element (6).

17. (Currently amended) The thermal spraying device as recited in claim [[15]] 1, wherein each of the plurality of powder injection ports (5) further comprises a nozzle inserted in a radial opening through the frame element, ~~and at least one of the open through holes (9) is adapted for accommodating a nozzle (5) therein.~~

18. (Original) The thermal spraying device as recited in claim 1, wherein the frame element (6) is detachably attached to the end piece (1).

19. (Original) The thermal spraying device as recited in claim 1, wherein the flame generated by the flame-generating means is a plasma jet.

20. – 21. (Cancelled)